

DIRECT TESTIMONY OF
TIMOTHY DANIELS
IN
DOCKET NO. 2017-281-E

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Timothy Daniels, and my business address is 20 Towne Drive, Suite 388,
Bluffton, South Carolina 29910.

**Q. DESCRIBE YOUR EDUCATIONAL BACKGROUND AND BUSINESS
EXPERIENCE, AS IT RELATES TO THE SOLAR INDUSTRY.**

A. I earned a B.A. in Political Science from Emory University and an M.S. in Environmental
Science from Johns Hopkins University. I have taken Graduate Courses in Mathematics
and Economics from both Johns Hopkins University and New York University.

**Q. PLEASE DESCRIBE YOUR BUSINESS EXPERIENCE AS IS RELATED TO
REGULATORY MATTERS REGARDING THE SOLAR INDUSTRY IN SOUTH
CAROLINA.**

A. I have worked in Energy matters for twenty years and I have been involved in Solar
Development for six years. My current position is Principal and Co-Founder of Adger
Solar LLC.

Q. ON WHOSE BEHALF ARE YOU PROVIDING THIS TESTIMONY?

A. Clarendon Solar Farm LLC and Summerton Solar Farm LLC, both of which are wholly owned by Adger Solar LLC.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

A. Yes, I testified in Docket 2017-1-E, the Duke Energy Progress fuels proceeding.

Q. WHAT IS THE PURPOSE OF THIS TESTIMONY?

A. To describe Adger's business model, and to explain why the five-year PPAs Duke is currently offering do not provide Adger with reasonable opportunities to attract capital for its projects.

Q. PLEASE EXPLAIN ADGER SOLAR'S BUSINESS MODEL.

A. Adger Solar is exclusively focused on the development of utility-scale solar projects. Our business model involves funding and performing all aspects of the development process including site selection, site due diligence work, local and state permitting, negotiating tax agreements, securing an interconnection agreement, and negotiating a power purchase agreement. Adger Solar typically would sell a project around the time of the Notice to Proceed, which is essentially when the projects are shovel-ready. After a project sale, Adger Solar will typically retain ownership of the land under the project and will sometimes assume some ongoing responsibilities related to construction.

1 **Q. HAS ADGER SOLAR SUCCESSFULLY FINANCED ANY UTILITY-SCALE**
2 **SOLAR PROJECTS IN SOUTH CAROLINA?**

3 **A.** Yes, Adger Solar has been active in the South Carolina market for almost four years and
4 has successfully financed three projects here. The first two projects, Ridgeland Solar Farm
5 at 10 MWac and Solvay Solar Energy at 71.4 MWac, are both located in Jasper County
6 and were sold to Dominion Energy in November 2016. Ridgeland had a 20-year PPA with
7 SCE&G and Solvay had a 15-year PPA with SCE&G. Additionally, Adger Solar sold its
8 Shaw Creek Solar project at 74.9 MWac to a large utility affiliate in June 2017. The Shaw
9 Creek Solar project had a 20-year power purchase agreement with SCE&G.

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11 **Q. DID ADGER SOLAR ENCOUNTER ANY PROBLEMS IN FINANCING/SELLING**
12 **THESE THREE PROJECTS BECAUSE OF THE TERMS OF THE POWER**
13 **PURCHASE AGREEMENTS?**

14 **A.** Yes. Adger Solar found that some large solar investors were uninterested in bidding on
15 the Solvay Solar Energy project (which had a 15-year PPA) because the term of the PPA
16 was less than 20 years. Adger Solar receives some bids for the project, but over half of the
17 parties that were approached declined to submit bids, and indicated that their lack of
18 interest was primarily due to the term of the PPA being only 15 years. Some of the parties
19 that declined to bid on Solvay because the 15-year PPA was not long enough included
20 affiliates of Con Edison, PSE&G, Sempra Energy, and Southern Company.

Q. DID THESE PARTIES THAT DECLINED TO BID ON THE SOLVAY SOLAR ENERGY PROJECT PROVIDE ANY ADDITIONAL EXPLANATION FOR THEIR CONCERN WITH THE TERM OF THE PPA?

A. In general, the parties expressed concern about the ability to manage the risk associated with energy prices during the portion of the 30-35 year life of the projects that extends beyond the term of the power purchase agreement. Unlike in competitive markets such as ISO New England, New York ISO, and PJM, where an independent power producer may market power directly to hundreds if not thousands of potential buyers, in a market such as South Carolina there is effectively only one buyer for the power from utility-scale projects, and that is the interconnecting utility, which owns the transmission system. In addition to concerns around this monopsony structure, the rates that are offered by the one buyer, the transmission owner, are not tied to an index such as a NYMEX market, but rather are the transmission owner's calculation of avoided costs. With the lack of transparency and long-term stability of the methodology used in these avoided cost calculations, it is exceedingly difficult for a financing party to project what avoided cost prices will be 10 or 20 years in the future. And even if a party could come up with a reasonable estimate of future pricing, it would be much more difficult to secure any sort of hedge – either physical or financial – than it would be in a competitive market where a wide range of hedge products exist.

Q. PLEASE PROVIDE AN OVERVIEW OF THE CLARENDON SOLAR FARM AND SUMMERTON SOLAR FARM PROJECTS, WHICH ARE THE SUBJECT OF THIS COMPLAINT.

1 **A.** Clarendon Solar Farm and Summerton Solar Farm are both 68 MWac projects located in
2 Clarendon County, South Carolina. Both projects are proposing to interconnect with a
3 Duke Energy Progress 230 kV line and have completed the interconnection study process.
4 Both projects have strong local support and have received zoning approvals and Fee in
5 Lieu of Tax agreements from the County. Additionally, Adger Solar, along with former
6 Governor Nikki Haley, issued a press release in November 2016 announcing Adger Solar's
7 commitment to spend \$200 million on the construction of these two projects.

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9 **Q. HAS ADGER SOLAR SOUGHT POWER PURCHASE AGREEMENTS FROM**
10 **DUKE FOR THESE PROJECTS?**

11 **A.** Yes, Adger Solar has had numerous discussions with Duke regarding potential power
12 purchase agreement for these two projects. Adger Solar first requested a power purchase
13 agreement in March 2016. Duke notified Adger Solar at that time that it would only
14 consider a term of 10 years. Duke then notified Adger Solar in May 2017 that it would no
15 longer offer a 10-year term and would now only consider a 5-year term.

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17 **Q. DID ADGER SOLAR ENTER INTO THESE POWER PURCHASE**
18 **AGREEMENTS WITH DUKE?**

19 **A.** No, Adger Solar did not.

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21 **Q. WHY DIDN'T ADGER SOLAR ENTER INTO THE AGREEMENTS PROPOSED**
22 **BY DUKE?**

1 **A.** Adger Solar had a number of discussion with different financing parties and could not find
2 one that would be interested in financing or acquiring a project with a 10-year power
3 purchase agreement. These parties all stated that a minimum of a 15-year agreement would
4 be required and a term of 20 years or longer would be preferred. Some of these parties
5 included DE Shaw Renewables, Clenera, Sempra Energy, Dominion Energy, NextEra,
6 First Solar, Sun Power, SPower, Novo Nordisk and Amber Infrastructure.

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8 **Q. IS ADGER SOLAR AWARE OF ANY OTHER UTILITY-SCALE SOLAR**
9 **PROJECTS THAT HAVE BEEN FINANCED IN SOUTH CAROLINA?**

10 **A.** It is difficult to track the exact status of projects that have received financing. However,
11 Adger Solar has been told by SCE&G that it anticipates having approximately 300 MW of
12 operating solar on its system by the end of 2017, and that SCE&G has executed a total of
13 over 700 MW of solar power purchase agreements with 15 and 20-year terms. By
14 comparison, the number of executed power purchase agreements filed with the
15 Commission by Duke is quite limited.

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17 **Q. WHAT WOULD YOU ESTIMATE THE TOTAL INVESTMENT WILL BE FOR**
18 **THIS 700 MW OF SOLAR WITH WHICH SCE&G HAS ENTERED INTO**
19 **CONTRACTS?**

20 **A.** Based on Adger Solar's estimates, this 700 MW of solar contracts will result in
21 approximately \$900 million to \$1 billion in investment by solar developers in South
22 Carolina.

1 **Q. WHY HAS DUKE NOT CONTRACTED FOR A SIMILAR QUANTITY OF**
2 **SOLAR IN SOUTH CAROLINA?**

3 **A.** It has been my observation that Duke's avoided cost rates have been generally similar to
4 those of SCE&G over time. Therefore, given Duke's larger load in South Carolina relative
5 to SCE&G, I would expect Duke to have entered into contracts with a no less than 700
6 MW of solar. However, based on the information publically available to Adger Solar it
7 would appear that Duke has only entered into contracts with solar projects for a small
8 fraction of 700 MW. I would have to conclude that it is as a result of the PPA terms being
9 offered by Duke not being able to attract investors.

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11 **Q. DOES THAT CONCLUDE YOUR TESTIMONY?**

12 **A.** Yes.
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